REMARKS

Claims 12-15 have been canceled without prejudice to or disclaimer of the subject matter recited therein. Applicant reserves the right to prosecute the canceled claims later in this application or in any continuing application. No new matter has been added. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the following remarks.

Rejection of Claims 1 and 3 Under 35 U.S.C. § 103

Claims 1 and 3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa (USP 5,651,574) and in view of Kiefersauer (USP 6,355,217).

The Office Action states: "Tanikawa does not disclose a trapping means that comprises of a trapping loop for trapping crystals gripped by the gripping means. Kiefersauer discloses a holding device for particulate material samples that features a carrier block for a loop holder that has a free mounting end for a particular sample, such as ones known from protein crystallography or cryotransferring of samples." (Page 3). However, the Office Action does not explain why a person of ordinary skill in the art would be motivated to combine the trapping means of Tanikawa and the loop holder of Kiefersauser.

It is well settled that "the mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art **must** provide **a motivation or reason** for the worker in the art, **without the benefit of appellant's specification**, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984, emphasis added). Further, the Supreme Court of the United States states: "Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to **identify a reason** that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does." *KSR International Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007) (emphasis added).

Here, there is no reason which has been identified in the Office Action and could be found in the references or any evidence of record to combine the trapping means of Tanikawa and the loop holder of Kiefersauer. The Office Action states: "It is interpreted by the examiner

that if the capillary may be adapted to mount particles, the loop may also be adapted to change to properly trap crystals of different sizes." This statement is unrelated to the reason for the current claims to recite "a controller for **controlling and coordinating** movement of the gripping member and movement of the loop **to grip the crystal with the gripping member inside the loop in the droplet** and **to separate the crystal from the droplet together with the gripping member and the loop**, thereby retaining the crystal inside the loop with liquid of the droplet." The Office Action further states: "Furthermore, **the holding device is not restricted to just use with a vacuum tweezers** when a capillary is used but can be also used with other holder devices in which the particulate material sample adheres to **the tip of the holding capillary or loop** through the effect of holder devices in which the particulate material sample adheres to the tip of the holding capillary through the effect of adsorptive forces, electrical forces or adhesive (see abstract, column 1, lines 5-8, column 2, lines 7-21, 41-67, column 6, line 61-column 7, line 44)." Emphasis added. The Office Action implies that the holding device can be used in combination with a vacuum tweezers, and other holder devices can be used with a loop. However, the above statement is not accurate and is not in consistent with the teachings of Kiefersauer. Kiefersauer states:

> The holding capillary can be a hollow capillary operated with a vacuum (vacuum tweezer) or a compact, extended, pointed component with a support at its end for the particular material sample. Thus **the invention is not restricted to implementation with the vacuum tweezer structure** but can also be used with other holder devices in which the particulate material sample adheres to **the tip of the holding capillary** through the effect of adsorptive forces, electrical forces or an adhesive. **An example for such an alternative holding device is the loop holder** noted above which comprises a base part, a support part and the loop as such. *Kiefersauer,* col. 2, lines 50-63, emphasis added.

As can be understood from the above, in Kiefersauer, the holding device can have a vacuum tweezer structure (operated with a vacuum) or other structures such as a loop holder (operated with the effect of adsorption forces, electrical forces or an adhesive) in which the particular sample adheres to the tip of the holding capillary. Kiefersauer in no way suggests that a loop be used in combination with other holder devices. Kiefersauer simply suggests that the holding device can have a vacuum structure (Figs. 1 and 4) or other structures such as a loop holder (Fig. 6). Further, in Kiefersauer, the loop is used so that the sample adheres to the loop.

Kiefersauer in no way suggests that the sample be **gripped** with another holder device **inside** the loop in a droplet.

Due to the configurations in the current claims, the capturing of a crystal can highly securely be performed without damaging the crystal even by unskilled persons. Further, due to the highly stabilized capturing, "[i]n the above example, automating the looping of a crystal 11 will enable efficient looping. It will also allow for an easy, reliable loading of a crystal 11 into the loop 17, thereby increasing the success ratio of looping." *Specification* at page 12, lines 14-16. These significant advantages cannot reasonably be expected by a person of ordinary skill in the art based on the teachings of Tanikawa and Kiefersauer.

At least in view of the foregoing, Tanikawa and Kiefersauer do not teach or suggest the claimed structures in a predictable manner. Thus, claim 1 and its dependent claim 3 cannot be obvious over Tanikawa and Kiefersauer in the absence of evidence to the contrary. Applicant respectfully requests withdrawal of this rejection.

Rejection of Claims 2 and 7 Under 35 U.S.C. § 103

Claims 2 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa and Kiefersauser, and further in view of Nakamura (US 2004/0169693). Claims 2 and 7 depend from claim 1, and as discussed above, claim 1 cannot be obvious over Tanikawa and Kiefersauer. Thus, Applicant believes that this rejection is moot.

Rejection of Claims 10-11 Under 35 U.S.C. § 103

Claims 10-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa and Kiefersauser, and further in view of Nakamura.

As discussed with regard to the rejection of claim 1 above, Kiefersauser in no way teaches or suggests a combination of the gripping means and the loop. Further, Kiefersauer states: "the particulate material sample adheres to the tip of the holding capillary through the effect of adsorptive forces, electrical forces or an adhesive," *Kiefersauer*, col. 2, lines 56-59, but Kiefersauer does not teach any specific processes of trapping the particular material sample. None of Kiefersauer, Tanikawa, and Nakamura teaches or suggests the following specific sequence in the current claims:

(i) placing a droplet containing micro-crystals in a predetermined location;

(ii) gripping one of the micro-crystals in the droplet by a gripping member;

(iii) placing a loop into the droplet and positioning the loop to enclose the micro-crystal being gripped inside the loop, said loop being configured to retain liquid of the droplet therein by closing the loop with the liquid using its surface tension when separated from the droplet; and

(iv) separating the micro-crystal being placed inside the loop from the droplet while maintaining the position of the micro-crystal being gripped by the gripping member and enclosed by the loop, thereby retaining the crystal inside the loop with liquid of the droplet with surface tension of the liquid.

Due to the above specific sequence, the highly stabilized capturing of a crystal can be realized, and this effect is not even suggested in the references. Since either the references do not expressly or impliedly suggest the claimed sequence, Applicant respectfully requests a more specific explanation as to why the claimed sequence of gripping the micro-crystal by the gripping member, enclosing the same by the loop, and separating the micro-crystal from the droplet while maintaining the above position would have been obvious over the references.

"To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Also, MPEP § 706.02(j).

At least in view of the above, claim 10 and its dependent claim 11 cannot be obvious over the references in the absence of evidence to the contrary, and Applicant respectfully requests withdrawal of this rejection.

Rejection of Claims 12 and 13 Under 35 U.S.C. § 103

Claims 12 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa and in view of Kiefersauser. Claims 12 and 13 have been canceled without prejudice to or disclaimer of the subject matter recited therein. This rejection is moot.

Rejection of Claims 14 and 15 Under 35 U.S.C. § 103

Claims 14 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa and in view of Kiefersauser. Claims 14 and 15 have been canceled without prejudice to or disclaimer of the subject matter recited therein. This rejection is moot.

Rejection of Claims 16 and 17 Under 35 U.S.C. § 103

Claims 16 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanikawa and Kiefersauser, further in view of Nakamura. As discussed above with regard to the rejection of claims 10-11, the subject matter of claims 10 and 11 cannot be obvious over the references. Claims 16-17 recites limitations similar to those recited in claims 10-11. At least for this reason, claims 16 and 17 also cannot be obvious over the references. Applicant respectfully requests withdrawal of this rejection.

CONCLUSION

In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Respectfully submitted,

K.A.Patents

Dated: April 5, 2008 By: _____

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